

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.-10. (Canceled)

11. (Currently Amended) A fuel cell stack comprising a plurality of stacked unit cells, wherein each unit cell comprises:

a membrane electrode assembly in which gas diffusion electrodes are disposed on each side of a polymer electrolyte membrane; and

a separator comprising a plurality of ribs which contact the membrane electrode assembly to realize a current collecting function, and a plurality of gas passages formed between the ribs for supplying a gas to the gas diffusion electrode,

the fuel cell stack comprises a first region and a second region, with both the first region and the second region being located in the interior of the fuel cell stack thereof, the first region having a higher temperature than the second region, and

at least one of the gas passages, the ribs, and the gas diffusion electrode is constituted such that a gas diffusion through the gas diffusion electrode adjacent to the first region is improved beyond the gas diffusion through the gas diffusion electrode adjacent to the second region.

12. (Previously Amended) The fuel cell stack as defined in Claim 11, wherein the first region is a central region of a surface of the unit cell when seen from a stacking direction of the fuel cell stack, and the second region is a region on an outer side of the first region on the surface of the same unit cell.

13. (Previously Amended) The fuel cell stack as defined in Claim 11, further comprising a plurality of coolant passages through which a coolant flows onto a rear side of the gas passages,

wherein the first region is a region near an outlet from the coolant passages, and the second region is a region on the outer side of the first region.

14. (Previously Amended) The fuel cell stack as defined in Claim 11, wherein the first region comprises unit cells disposed in the center of the plurality of stacked unit cells, and the second region comprises unit cells disposed on the outer side of the unit cells disposed in the center.
15. (Previously Amended) The fuel cell stack as defined in Claim 11, wherein a sectional area of the gas passages adjacent to the first region is larger than the sectional area of the gas passages adjacent to the second region.
16. (Previously Amended) The fuel cell stack as defined in Claim 15, wherein the sectional area of the gas passages adjacent to the first region increases toward a downstream side.
17. (Previously Amended) The fuel cell stack as defined in Claim 11, wherein a width of the ribs adjacent to the first region is smaller than the width of the ribs adjacent to the second region.
18. (Previously Amended) The fuel cell stack as defined in Claim 17, wherein the width of the ribs adjacent to the first region decreases toward the downstream side.
19. (Previously Amended) The fuel cell stack as defined in Claim 11, wherein a porosity of the gas diffusion electrode adjacent to the first region is greater than the porosity of the gas diffusion electrode adjacent to the second region.
20. (Previously Amended) The fuel cell stack as defined in Claim 19, wherein a mixture containing carbon is coated in a smaller amount onto the gas diffusion electrode adjacent to the first region than the gas diffusion electrode adjacent to the second region.